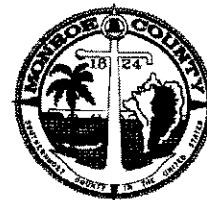


**5.0**

---

*Mass Transit  
Element*



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## **5.0 Mass Transit Element**

### **5.1 Background Data**

#### **5.1.1 Mass Transit Routes, Service Areas, Terminals, Right-Of-Way and Exclusive Corridors**

Mass transit in Monroe County is currently provided by the Key West Port and Transit Authority (PATA). The county itself does not operate a mass transit system. As shown on the Existing Traffic Circulation Map, the PATA service is a fixed route service oriented to the residents of Key West and Stock Island (PATA, 1991). There are no mass transit terminals, rights-of-way or exclusive mass transit corridors in Monroe County. However, there are a series of school bus stops along US 1 that could be useful to a county wide transit system.

The Monroe County Transportation Program (MCTP) operates a paratransit service for the transportation disadvantaged. This is a county wide, portal to portal service available by appointment and thus does not operate according to an established route. Offices of the MCTP are located in Key West, Marathon, and Plantation Key. Primary clients are the transportation disadvantaged (those individuals who because of physical or mental disability, income, status, or age are unable to transport themselves or to purchase transportation and are therefore dependent on others for access to services).

In addition, the Greyhound Bus Company provides regular service for the entire length of the Keys. This company offers three trips daily up the Keys and three trips daily down the Keys and will pick up or drop people off anywhere along the way as authorized flag stops (Greyhound, 1992). However, tickets must be purchased at a ticket office at one of the stations on Key West, Big Pine, Marathon, and Key Largo.

In 1987 there were several, local private transit operators. The Marathon Transit Company Inc. provided a demand responsive service in the Middle Keys. The Islamorada Trolley Company provided a regular, fixed route service in Tavernier, Plantation Key, Windley Key and Islamorada TOS, 1987). These systems no longer operate.

#### **5.1.2 Major Trip Generators Attractors**

Major trip generators and attractors are "concentrated areas of intense land use or activity that produce or attract a significant number or local trip ends" (F.A.C 9J-5.003(51)). These have been further identified (Biemborn, 1991) by reviewing the land uses listed in the ITE Trip Generation Manual, 4th edition and evaluating them on the criteria of 1) frequency of regular travel, 2) size, 3) need to carry large parcels, 4) the extent of trip peaking characteristics, and 5) the type potential users. By applying these criteria, Biemborn developed a categorization of land uses with high transit compatibility or low transit compatibility (Table 5.1)

**Table 5.1**  
**Compatibility of Various Land Uses**  
**to Transit Service**

High Transit Compatibility	Low Transit Compatibility
Commercial Airport Park and Ride Station General Heavy Industrial Apartments Residential Condominiums High Density Residential Retirement Community Hotel - non CBD Stadium Elementary School High School Junior/Community College Hospital General Office Building Office Park Shopping Center	Water Port general Aviation Airport Truck Terminal Mini-Warehousing Utilities Recreational Homes Resort Hotel Marina Golf Course Day Care Center Nursing Home State Motor Vehicle Dept. Building Materials/Lumber Hardware/Paint Store Nursery/Garden Center Quality Restaurant New Car Sales Service Station Car Wash Highway Oasis/Truck Stop Furniture Store Drive-in Bank/Save and Loan

Source: Beimborn, 1991

The above list of land uses in Table 5.1 is a general guide and should be adopted to local circumstances. Thus, in order to identify major trip generators in Monroe County it was assumed all hotels in the Keys are resort hotels, residential condominiums are recreational homes, and there is no typical heavy industry in the Keys. Subsequently, a list was developed of specific major trip generators and non specific, dense, commercial areas (Table 5.2). These are located on the Existing Traffic Circulation Map.

**Table 5.2**  
**Major Trip Generators in Monroe County**

<b>Mile Marker</b>	<b>Facility</b>	<b>Key</b>
5*	Stock Island Apartments	Stock Island
5*	Commercial Area	Stock Island
8	Naval Air Station	Boca Chica
19	Sugarloaf Elementary School	Upper Sugarloaf
24.5	Commercial Area	Summerland
30.5	Big Pine Plaza Shopping Center	Big Pine
31	Big Pine Flea Market	Big Pine Key
34	Bahia Honda State Park	Bahia Honda
49	West End Commercial Area	Marathon
49.1	Proposed state & county offices	Marathon
49.2	Existing County Office	Marathon
49.3	Fisherman's Hospital	Marathon
50*	Switlik Elementary School	Marathon
50	K-mart Shopping Plaza	Marathon
50	Gulfside Village Shopping Plaza	Marathon
50*	Sombrero Beach & Picnic Area	Marathon
50*	Marathon Apartments	Marathon
51.5	Marathon Airport	Marathon
52.8	Winn Dixie Shopping Plaza	Marathon
65	Downtown Islamorada	Islamorada
81.5	Plantation Key Government Center	Plantation
89	Mariners Hospital	Plantation
90	Plantation Key Elementary School	Plantation
90	Plantation Key High School	Plantation
90.7	E. End of Plantation Key	Plantation
91.5	Tavernier Town Shopping Center	Key Largo
93*	Harry Harris Park	Key Largo
99.5	Waldorf Plaza Shopping Center	Key Largo
99.5	Area Surrounding Waldorf Plaza	Key Largo
105	Key Largo Elementary School	Key Largo

\* Not located on US 1.

Source: Monroe County Planning Department

### **5.1.3 Number of Vehicles and Service Frequency**

Two buses are operated by PATA on a fixed route for sixteen (16) hours a day from 6:00 am to 10:00 pm. This allows a bus every hour. On weekdays, two additional busses are added to the service during the morning and afternoon peak hours to allow a bus every half hour (PATA, 1991).

The MCTP operated ten (10) vans and has seven (7) drivers. Service is not regular due to the individual requirements of the transportation disadvantaged. Consequently, the MCTP offers portal to portal service eight (8) hours a day but requires twenty four (24) hour advance notice. This allows the transportation disadvantaged to visit sites such as:

- 1) Medical facilities (doctors' offices, hospitals, clinics, laboratories, drug stores, etc.),
- 2) Nutrition sites,
- 3) Public and private agencies offering services to the elderly, handicapped and transportation disadvantaged,
- 4) Grocery stores,
- 5) Senior citizens' centers, and
- 6) Medical facilities in Dade County.

Each day the Greyhound Bus Company provides three (3) trips up the Keys and three (3) trips down the Keys as indicated in the schedule (Table 5.3). This service allows people to get on or off at any location along the way.

### **5.1.4 Ridership and Revenues**

The PATA fares are 0.75 cents for passengers without discounts or passes, 0.35 cents for senior citizens and students and free for children under five (5). Monthly passes are regularly \$20.00 but are \$12.00 for senior citizens and students.

The revenues collected by PATA for the fiscal years 1989/90 and 1990/91 were \$136,827 and \$138,033, respectively. The monthly revenues for the same years are shown in Table 5.4. These indicate a slight increase in revenue during the winter months.

The number of passengers on PATA for the fiscal years 1989/90 and 1990/91 were 243,245 and 249,377, respectively. The monthly ridership for the same years is shown in Table 5.5. These numbers also indicate a slight increase during the winter months.

As indicated, there are approximately 20,500 passengers per month and nearly 250,000 passengers annually. However, many passengers are regular riders and thus these numbers are much greater than the number of individuals who use the system.

# MIAMI—KEY WEST

READ DOWN			SCHEDULE NUMBER		READ UP		
3715	3713	3711			3694	3712	3714 3716
Folder No. 66			414		1-8-92		
			FREQUENCY		Miami Jacks'ville		
5 45	2 15	6 30	Lv	Ⓐ Miami (Bayside), FL	Ar	D 12 45	D 5 15 D 12 45
6 00	2 30	6 45	Ar	▲ Miami, FL (4111 N.W. 27th St.)	Lv	12 30	4 45 12 30
4 55	1 40	5 50	Lv	North Miami Beach, FL (416)	GL Ar	9 20	1 20 5 45 1 25
5 10	1 55	6 05		Miami Beach, FL		9 00	1 00 ↑ 1 10
5 35	2 25	6 30	Ar	Miami, FL	Lv	8 30	12 30 5 15 12 45
6 15	3 00	7 00	Lv	▲ MIAMI, FL (4111 N.W. 27th St.)	Ar	8 15	12 15 4 30 12 20
D	D	D		Miami Airport		↑	D D D
6 30	3 20	7 15		▲ Coral Gables		8 00	12 01 4 05 12 05
6 55	3 50	7 40		▲ Perrine			11 30 3 35 11 40
f	f	f		Goulds		f	f f f
f	f	f		Princeton		f	f f f
7 20	4 15	8 05		▲ Homestead		11 10	3 10 11 20
f	f	f		Florida City Jct.		f	f f f
7 55	4 50	8 40		▲ Key Largo		10 35	2 35 10 50
f	f	f		Tavernier		f	f f f
8 20	5 15	9 05		Islamorada		10 10	2 10 10 25
15"	15"	15"		Rest Stop		15"	15" 15"
f	f	f		Layton		f	f f f
9 15	6 10	10 00		▲ Marathon		9 15	1 15 9 30
9 40	6 35	10 25		▲ Big Pine Key		8 50	12 50 8 55
f	f	f		Summerland Key		f	f f f
f	f	f		Sugar Loaf Shores		f	f f f
f	f	f		Boca Chica		f	f f f
Ⓒ 1030	7 25	11 15	Ar	▲ KEY WEST, FL (LB)	GL Lv	8 00	12 01 8 15

©Z414-1118dk

Table 5.3. Greyhound Bus Company Schedule: Miami - Key West.

Source: Greyhound Time Table, Folder No. 66



**Table 5.4**  
**Monthly Transit Revenue**  
**Key West Port and Transit Authority**

Month	Fiscal Year 89-90	Fiscal Year 90-91	Fiscal Year 91-92
October	11,948	11,239	11,222
November	11,220	11,653	9,680
December	10,986	12,196	13,175
January	12,718	12,842	
February	12,725	12,432	
March	12,149	12,926	
April	10,950	11,994	
May	11,048	10,030	
June	10,681	10,230	
July	11,294	10,836	
August	10,872	10,778	
September	10,236	10,969	
TOTAL	\$136,827	\$138,033	

Source: Key West Port and Transit Authority

The transit oriented population (people who regularly rely on the system for everyday living) is different from the people who use the system very rarely (such as when a car is being repaired) and is much less than the total number of passengers. This population can be estimated by applying several assumptions. For instance, if the only people riding the bus were people going to and from work, five (5) days a week for fifty (50) work weeks in a year, then one individual would take two (2) trips a work day, ten (10) trips a week and 500 trips a year. Such a person would be counted as 500 passengers in the year. Thus, if the bus were used only for work trips, then PATA would have served 500 people in fiscal year 1990/91 (250,000 trips divided by 500 trips per person).

However, the people regularly relying on the transit system include people who ride the bus several times a day or who only ride several times a week. These people may balance out each other and thus allow the rough estimate that the transit oriented population is between 250 to 1,000 people while the population of Key West for comparison is approximately 25,000 (BEBR, 1992).

**Table 5.5**  
**Monthly Transit Passengers**  
**Key West Port and Transit Authority**

Month	Fiscal Year 89-90	Fiscal Year 90-91	Fiscal Year 91-92
October	21,337	20,000	20,039
November	20,036	20,808	17,286
December	18,531	21,779	23,526
January	22,711	22,932	
February	22,723	22,201	
March	21,964	23,083	
April	19,554	21,419	
May	19,728	20,703	
June	19,073	18,268	
July	20,167	19,350	
August	19,413	10,247	
September	18,278	19,587	
TOTAL	243,245	249,377	
Average	20,270	20,781	20,283

Source: Key West Port and Transit Authority

The passengers of the MCTP are classified as units of service. In 1987, the MCTP provided 47,384 units of service to 877 unduplicated clients (separate individuals) (TPS, 1987). In 1991, preliminary estimates MCTP indicate there were approximately 44,000 units of service with the monthly totals ranging from approximately 2,100 to 4,800.

The MCTP service is free to qualified users although donations are accepted. The operating revenues are provided by reimbursements from Medicaid, federal grants entitled by the Title 3-b Older American Act and the gasoline tax collected in Monroe County.

Information on ridership and revenues of the Greyhound service is not available. However, the fares to Miami are \$29.60 one way and \$56.20 round trip. Table 5.6 lists the fares for intermediate distances. As can be seen, the regular fares are reduced if the tickets are purchased in advance of the day of travel. For instance, a twenty mile trip by Greyhound (ie. downtown Key West to Upper Sugarloaf Key) would normally be \$8.20 round trip and \$6.00 if purchased seven days in advance. Although not shown on the table, further discounts are available for tickets purchased fourteen (14) and twenty one (21) days in advance. Thus for the same twenty mile round trip the fare would be \$4.00.

**Table 5.6**  
**Greyhound Intrastate Fares (Dollars)**  
**For Mileage Traveled**

Mileage	Regular	One Way 3 Day Advance	7 Day Advance	Regular	Round Trip 3 Day Advance	7 Day Advance
0-6	3.1	2.5	2.5	6.1	5.0	4.5
7-13	3.6	3.0	2.5	7.1	6.0	5.5
14-20	4.1	3.5	3.0	8.2	7.0	6.0
21-26	5.6	5.0	4.0	10.2	8.5	7.5
27-33	6.6	5.5	5.0	12.2	10.5	9.0
34-40	7.7	6.5	6.0	14.3	12.0	10.5
41-46	9.2	8.0	7.0	17.3	14.5	13.0
47-53	10.7	9.0	8.0	20.4	17.5	15.5
54-60	11.7	10.0	9.0	22.4	19.0	17.0
61-66	12.8	11.0	9.5	26.5	21.0	18.5
67-73	14.3	12.0	10.5	28.0	22.5	20.0
74-80	15.3	13.0	11.5	32.2	24.5	21.5
81-86	16.8	14.5	12.5	35.4	27.5	24.0
87-93	18.4	15.5	14.0	28.4	30.0	26.5
94-100	19.4	16.5	14.5	37.4	32.0	28.0
101-108	20.4	17.5	15.5	39.5	33.5	29.5

Source: Greyhound Bus Company

### 5.1.5 Percent of Automobile Ownership

A number of indicators suggest Monroe County has and will continue to have a lower percentage of automobile ownership than the State of Florida as a whole. In 1982, there were fifty one (51) passenger car tags per one hundred (100) people in Monroe County while for the state there were sixty two (62). Also, the number of passenger tags per driver license appears to be decreasing (Table 5.7). In 1977, the State and County had nearly the same number of tags per license. However, since then the number for the County has decreased and the State number increased. In 1989, the number of tags to licenses was 0.6 for the County and 0.8 for the State (Board of Regents of the State of Florida, 1990).

In addition, the percentage of tags issued to out of state residents has increased in Monroe County while the percentage for the state has stayed relatively stable (Table 5.7). This is most likely due to an increasing number of people residing in the county for part of the year.

**Table 5.7**  
**Ratios of Tags Per License**  
**and Out of State Tags Per Tags Issued**

	1977	1982	1983	1985	1987	1989
Tags Per License/State	.758	.760	.744	.851	.794	.807
Tags Per License/County	.745	.590	.563	.639	.550	.559
Percentage of Out of State Per Passenger Car Tag	Vehicles			Registered		
State	5.9	5.1	5.1	5.7	5.5	5.0
County	7.4	7.8	7.2	10.5	11.1	9.0

Source: Florida Statistical Abstracts, 1977 to 1990.

There is also evidence that the percent of automobile ownership may also be less for retired households. In 1989, on Big Pine Key there were 1.45 cars per retired household and 1.92 cars per non-retired household (Garrett, 1989). If these numbers are adjusted for household size, the lower extent of automobile ownership is still less for retired households (.725 cars per retired household member and .780 per non-retired household member).

Thus, there appears to be a lower extent of automobile ownership in Monroe County than in the State of Florida as a whole. Explanations for this include the extent of retired households and that the City of Key West which is served by PATA and has extensive bicycle/pedestrian use. Thus, the actual extent of automobile ownership in unincorporated Monroe County may be closer to the State average than indicated if the impact of Key West is eliminated.

#### **5.1.6 Population Characteristics**

The functional population (residents plus seasonal visitors) for all of Monroe County is projected to increase from 134,667 to 175,800. Of this, the population of residents is forecasted to increase by approximately 21,000 (from 78,024 to 99,200) and the seasonal population is forecasted to grow by nearly 20,000 people (from 46,312 to 76,200). The bulk of this growth will occur in areas of Layton, Key Colony Beach, and Key West, adding only 4,000 residents (from 25,992 to 30,026) and 1,700 peak seasonal visitors (from 13,523 to 15,200).

The only area of unincorporated Monroe County served by PATA, the south half of Stock Island, is forecasted to grow fairly little. Between 1990 and 2010, the entire functional population of both Stock Island and Key Haven (not served by PATA) is projected to grow by only 857 people (from 6,275 to 7,312)(WRT, 1991).

The household size and the age composition of Monroe County has also changed. Table 5.8 shows how, since 1960, the household size has decreased, the percentage of people over sixty five (65) and eighty five (85) has increased and the percentage of those under 18 has decreased (WRT, 1991).

**Table 5.8**  
**Changes in Household Size, Population Under 18,**  
**Over 65 and Over 85 in Monroe County, Florida**

Year	Household Size	Population Percentage Under 18	Population Percentage Over 65	Population Percentage 85 and Over
1960	3.10	32.1	5.6	0.28
1970	2.89	29.9	8.5	0.34
1980	2.34	19.8	14.1	0.65
1990	2.24	17.3	15.9	0.90
2000	2.13*	NA	15.9	NA

\* Unincorporated area of Monroe County

\*\* Not available.

Source: Monroe County, 1986 and WRT, 1991

The per capita personal income in Monroe County was below the statewide average until the late 1980s. In 1978 the per capita personal income was \$7,140 in the County and \$7,819 in the State. By 1989, the per capita incomes were \$17,986 in the County and \$17,715 in the State (Board of Regents).

However, the distribution and range of incomes throughout the community is not clear. The most recent information is for 1980, when ten percent of the households had 1979 incomes below the poverty level (Board of Regents). However, in Monroe County, wage earning is 52 percent and dividends and transfer payments are 48 percent. This compares to wages nationally accounting for 62 percent of income and only 38 percent being dividends and transfer payments. This indicates strength of retirement income and a fairly affluent community on average (WRT, 1991).

With the growth in the County, the percentage of people below poverty level may have decreased although the actual number could have stayed the same. Once the 1990 census information is available it will be possible to better assess the distribution of incomes.

The special needs of the transportation disadvantaged may grow faster than population growth. With the increase in population of people over sixty five (65) and general increase in the very old as evidenced in the percentage of people eighty five (85) and over, then there may be an increased number of transportation disadvantaged. In addition, the wheel chair bound component may increase and thus more time per stop will be needed.

### **5.1.7 Florida Department of Transportation and the Community Transportation Coordinator**

Whenever any state funds are used for transportation or any program with a transportation component, there must be a concurrence by the Council for the Transportation Disadvantaged. One of the requirements of receiving this signoff is that there be a Designated Official Planning Authority (DOPA) for planning transportation programs and a Community Transportation Coordinator (CTC) for the coordination of the various activities. The funds must then be spent consistent with the plans of the DOPA and the expenditures must be monitored by the CTC.

In large communities, the Metropolitan Planning Organization (MPO) fulfills these duties. However, Monroe County does not have sufficient population to qualify for an MPO and consequently another organization must accept these responsibilities. In the past, PATA and the Florida Department of Transportation (FDOT) have fulfilled this function. The MCTP has refrained from accepting these designations because of the added work load and the minimal amount of funding the MCTP gets from the State (in fiscal year 1990/91 the MCTP did not receive state funds).

As of February, 1992, there is no DOPA or CTC in Monroe County, although there are discussions as to who will be so designated. Nevertheless, there is regular communication and coordination between the agencies with transportation programs. This is because of the few transportation providers and Monroe County is different from other areas where many municipalities, counties, school boards, and agencies are in close proximity or overlap each other.

## **5.2 Analysis of Existing Mass Transit Levels of Service and System Needs**

### **5.2.1 Key West Port and Transit Authority**

The existing system serves the current needs. Each bus operated by PATA has a capacity for 37 passengers (TPS, 1987). This represents a theoretical minimum capacity of roughly 40,000 passengers a month (each bus carrying only a passenger in each seat for the entire length of the route). However, the number of actual passengers is much less. Consequently, there is substantial remaining capacity.

Capacity can also be evaluated for the peak hour of the peak link (the maximum number of passengers on the bus at one time). Table 5.9 indicates the number of passengers getting on and off per hour at seven (7) areas. Although this does not give the actual number of people on the bus or indicate activity at individual stops, it does give an indication of peak hour operations.

The most intensive use of the PATA system occurs in the old town of Key West between 7:00 and 9:00 in the morning. As indicated in Table 5.9, during these hours 105 passengers got on busses and only 12 got off. At the time of this study, the peak hour service was provided on 15 minute intervals and thus the total theoretical minimum capacity was 296 passengers per hour and now, with 30 minute intervals, the capacity is 148 passengers per hour. Thus demand does not exceed the peak hour capacity.

TABLE 5.9  
TOTAL PASSENGERS ONS & OFFS  
PATA

	SHOPPING CENTER		OLDTOWN		MALLORY SQUARE		STOCK ISLAND		COLLEGE		DUCK AVENUE		SENIOR PLAZA		OTHER	
	OFFS	ONS	OFFS	ONS	OFFS	ONS	OFFS	ONS	OFFS	ONS	OFFS	ONS	OFFS	ONS	OFFS	ONS
6 AM - 7 AM	2	1	1	24	0	0	9	2	0	0	0	0	0	0	16	3
7 AM - 8 AM	7	3	6	60	2	0	11	5	0	0	0	3	3	1	38	11
8 AM - 9 AM	7	3	6	45	1	1	5	9	2	4	2	2	0	4	38	11
9 AM - 10 AM	5	7	14	24	8	0	6	11	8	1	3	2	1	0	89	30
10 AM - 11 AM	18	13	30	46	5	1	33	58	6	3	1	5	1	2	14	11
11 AM - NOON	15	16	25	23	7	4	7	7	5	4	0	0	1	4	17	17
NOON - 1 PM	8	7	24	28	6	4	10	7	5	7	4	1	1	3	14	20
1 PM - 2 PM	7	10	7	15	9	1	8	8	4	4	5	1	3	5	16	9
2 PM - 3 PM	11	15	19	26	5	3	18	12	2	11	2	1	0	0	12	8
3 PM - 4 PM	13	16	35	21	0	5	7	5	1	11	2	1	0	4	26	31
4 PM - 5 PM	7	11	45	16	1	2	13	4	1	12	1	2	2	0	13	23
5 PM - 6 PM	8	5	18	17	5	9	12	10	2	1	2	3	2	1	9	17
6 PM - 7 PM	1	4	6	10	0	10	11	6	1	1	0	0	1	0	9	3
7 PM - 8 PM	4	6	6	4	4	3	7	3	0	0	0	0	0	0	6	5
8 PM - 9 PM	0	5	2	0	5	4	4	2	0	0	0	0	0	0	2	1
9 PM - 10 PM	0	1	3	2	4	0	0	0	1	0	0	0	0	0	1	2
10 PM - 11 PM	0	2	7	8	0	0	0	0	0	0	0	0	0	0	3	0
TIME UNKNOWN	2	2	0	2	0	0	1	0	2	0	0	0	0	1	2	1
TOTAL	115	127	254	371	62	47	153	169	53	58	24	21	15	25	325	203

Source: TPS, 1987

### **5.2.2 Monroe County Transportation Program**

The MCTP is able to provide service county wide for eight (8) hours a weekday (except holidays) and requires a request for service at least twenty four (24) hours in advance. This provides access to nearly all businesses during normal working hours.

### **5.3 Analysis of Demand and Feasibility for Mass Transit Service**

There are six major factors affecting the future demand and feasibility of transit in Monroe County. Three of these factors counter the success of transit and three favor the development of transit in the future. The factors countering the development of transit relate to the type of population in Monroe County. These are:

1. The population of people under eighteen (18), normally a transit oriented populations, is growing very slowly and thus transit demand by this group of potential uses is likely to grow slowly as well.
2. The population of people over (65), normally a high transit user group, is growing. However, in Monroe County this is a fairly affluent population and thus not likely to take a bus.
3. The population of Monroe County appears reluctant to the idea of transit. A survey of residents indicate 24.4% willing to take a bus and 66.2 not willing to do so. Also, only 27.9% believed a bus system was the way to reduce traffic congestion compared to 38.6% for bike paths, 37% for frontage roads and 45.3% wishing to reduce development. This also can be compared to 49.8% agreeing US 1 should be widened to four lanes (RRA, 1990).

Finally, when asked what they would be willing to pay for a bus trip of twenty (20) miles, only 6.1 percent were willing to pay \$3.00, the equivalent of the Greyhound fare with seven (7) day advance purchase.

The three factors favoring the development of transit are:

1. The density of population will increase as existing subdivisions and commercial areas are filled in as identified on the Future Land Use Map. This is due to the increasing difficulty of developing in the environmentally sensitive areas of the Keys and the existence of over 10,000 vacant, improved residential lots (WRT, 1991). As a whole, this will make transit more efficient.
2. The Keys are a corridor community and thus transit service can efficiently serve the area.
3. The price of bus service is within peoples reach and willingness to pay. With a twenty one (21) day advance purchase the greyhound bus fare is \$4.00 for a twenty (20) mile round trip for people flagging down a bus on the established route. This represents the marginal cost of the passenger on a fixed run. At this fare, 48.7 residents indicated a willingness to pay for the bus ride (RRA, 1990).



## **5.4 Analysis of Projected Levels of Service and System Needs**

### **5.4.1 Key West Port and Transit Authority**

The growth in unincorporated Monroe County is not expected to exceed the capacity of PATA or significantly alter the level of service. This is because Stock Island is nearly developed. As indicated earlier, the functional population of Stock Island including Key Haven is only projected to grow by 857 people (from 6,275 to 7,132) between 1990 and 2010 (WRT, 1991). PATA has the capacity to provide service to these people.

### **5.4.2 Monroe County Transportation Program**

The demand for MCTP services will increase as a result of population growth and the aging of population with a concurrent increase in the transportation disadvantaged. However, future population growth is more likely to occur as infill in existing areas. Consequently, while there may be an increased demand for service, unlike many communities, the service area is not likely to expand.

However, the number of vehicles necessary to meet the need may increase if the level of service is to remain constant. The number of people requesting service will increase and the average length of time per stop will increase as the number of wheel chair bound people increases with the aging population. Thus, in the future, it is likely the occupancy of vans will increase, there will be more stops, the average time per stop will increase and the service may begin to more closely resemble a flexible, fixed route system. Eventually more vans may be needed.

The number of additional vans needed to serve the projected growth over the next twenty years can be roughly estimated from the scale of the projected growth. Between 1990 and 2010, the functional population of Monroe County will grow 130.5% from 134,667 to 175,800 (WRT, 1991). Based on this projection, the current fleet of ten (10) vehicles, in order to match the population growth, would need only three (3) more vehicles. However, this is a very preliminary number and the County should continue to monitor demand before adding more vehicles.

### **5.4.3 Basic Transit System Needs**

As indicated above, there are several factors favoring transit in the Keys. The population density is increasing, the shape of the Keys allows most of the development to be close to US 1, and the marginal price of transit is within the tolerable limits expressed by the residents.

However, in order for a transit system to be successful, "it must compete with the automobile in terms of access, convenience, comfort, and feasibility" (Beimborn, 1991). This involves offering the services at times when travel is needed, locating transit oriented land uses adjacent to each other, making it easy to get to bus stops with good pedestrian and bicycle paths, providing attractive waiting areas, and designing the street system and parking areas to efficiently accommodate transit vehicles.

In conclusion, the success of a county wide transit system will be a function of how well new development is designed to accommodate transit, how well the existing development can be modified

to assist transit, and how well the system is operated to meet the needs of the user. This in turn will be a function of how the Land Development Regulations affect design of new projects and renovation of existing areas, capital improvements for installing improvements such as bus stops and pedestrian paths, and a willingness to have a transit system.